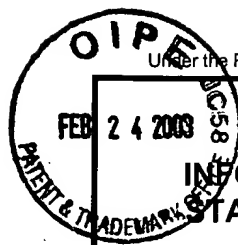


File Copy
09/771,355

Substitute PTO/SB/8A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



Substitute for form 1449A/PTO (Modified)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	3
-------	---	----	---

Complete if Known

Application Number	09/771,355
Filing Date	January 26, 2001
First Named Inventor	ZARLING, David A.
Group Art Unit	1636
Examiner Name	LAMBERTSON, David A.
Attorney Docket Number	A-68872-1/RFT/SPL (467135-98)

RECEIVED
FEB 26 2003
TECH CENTER 1800/2900

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.	U.S. Patent Document Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
<i>DL</i>	A1	5,747,469	05-05-1998	Roth et al.	
<i>DL</i>	A2	6,069,134	05-30-2000	Roth et al.	
<i>DL</i>	A3	6,143,290	11-07-2000	Zhang et al.	
<i>DL</i>	A4	2002/0137698 A1	09-26-2002	Ohnishi	
<i>DL</i>	A5	2002/0147161 A1	10-10-2002	Zeng et al.	
	A6				
	A7				
	A8				
	A9				
	A10				
	A11				

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Foreign Patent Document Country Code ² Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
<i>DL</i>	B1	WO 99/46371 A2	09-16-1999	Bd. of Regents, Univ. of Texas		
	B2					
	B3					
	B4					
	B5					
	B6					

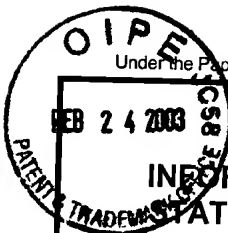
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					T ⁶
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
<i>DL</i>	C1	ALBALA JS, et al., "Identification of a novel human RAD51 homolog, RAD51B." Genomics. 1997 Dec 15;46(3):476-9.			
<i>DL</i>	C2	ASHLEY T, et al., "Dynamic changes in Rad51 distribution on chromatin during meiosis in male and female vertebrates." Chromosoma. 1995 Oct;104(1):19-28.			
<i>DL</i>	C3	BARGONETTI J, et al., "Wild-type but not mutant p53 immunopurified proteins bind to sequences adjacent to the SV40 origin of replication." Cell. 1991 Jun 14;65(6):1083-91.			
<i>DL</i>	C4	BISHOP JM. "The molecular genetics of cancer." Science. 1987 Jan 16;235(4786):305-11.			
<i>DL</i>	C5	BUCHHOP S, et al., "Interaction of p53 with the human Rad51 protein." Nucleic Acids Res. 1997 Oct 1;25(19):3868-74.			

Examiner Signature	<i>David Lambertson</i>	Date Considered	6/24/03
--------------------	-------------------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English Language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. 1102895_1.DOC



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute PTO/SB/8A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Substitute for form 1449A/PTO
(Modified)

C mplete if Kn wn

Application Number	09/771,355
Filing Date	January 26, 2001
First Named Inventor	ZARLING, David A.
Group Art Unit	1636
Examiner Name	LAMBERTSON, David A.
Attorney Docket Number	A-68872-1/RFT/SPL (467135-98)

Sheet **2** of **3**

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

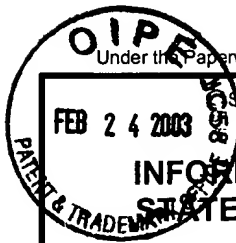
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
DL	C6	CARTWRIGHT R, et al., "The XRCC2 DNA repair gene from human and mouse encodes a novel member of the recA/RAD51 family." Nucleic Acids Res. 1998 Jul 1;26(13):3084-9.	
DL	C7	CASEY G, et al., "Growth suppression of human breast cancer cells by the introduction of a wild-type p53 gene." Oncogene. 1991 Oct;6(10):1791-7.	
DL	C8	DOSANJH MK, et al., "Isolation and characterization of RAD51C, a new human member of the RAD51 family of related genes." Nucleic Acids Res. 1998 Mar 1;26(5):1179-84.	
DL	C9	EASTON DF, et al., "Genetic linkage analysis in familial breast and ovarian cancer: results from 214 families. The Breast Cancer Linkage Consortium." Am J Hum Genet. 1993 Apr;52(4):678-701.	
DL	C10	FIELDS S, and JANG SK. "Presence of a potent transcription activating sequence in the p53 protein." Science. 1990 Aug 31;249(4972):1046-9.	
DL	C11	GAME, J.C., "Radiation-Sensitive Mutants and Repair in Yeast," in <i>Yeast Genetics: Fundamental and Applied Aspects</i> . Spencer, J.F.T. et al. (Eds.) New-York: Springer-Verlag New York, Inc., pp. 109-137 (1983)	
DL	C12	GAYTHER SA, et al., "Variation of risks of breast and ovarian cancer associated with different germline mutations of the BRCA2 gene." Nat Genet. 1997 Jan;15(1):103-5.	
DL	C13	HAFF T, et al., "Nuclear foci of mammalian Rad51 recombination protein in somatic cells after DNA damage and its localization in synaptonemal complexes." Proc Natl Acad Sci U S A. 1995 Mar 14;92(6):2298-302.	
DL	C14	HAYNES, RH and KUNZ, BA, "DNA Repair and Mutagenesis in Yeast," in <i>The Molecular Biology of the Yeast Saccharomyces Cerevisiae: Life Cycle and Inheritance</i> , Strathern, J.N. et al. (Eds.) Cold Spring Harbor, New York: Cold Spring Harbor Laboratory Press, pp. 371-414 (1981)	
DL	C15	HEYER WD. "The search for the right partner: homologous pairing and DNA strand exchange proteins in eukaryotes." Experientia. 1994 Mar 15;50(3):223-33.	
DL	C16	HOLLSTEIN M, et al., "p53 mutations in human cancers." Science. 1991 Jul 5;253(5015):49-53.	
DL	C17	LI MJ, et al., "Rad51 expression and localization in B cells carrying out class switch recombination." Proc Natl Acad Sci U S A. 1996 Sep 17;93(19):10222-7.	
DL	C18	LIM DS, and HASTY P. "A mutation in mouse rad51 results in an early embryonic lethal that is suppressed by a mutation in p53. Mol Cell Biol. 1996 Dec;16(12):7133-43.	
DL	C19	LIU N, et al., "XRCC2 and XRCC3, new human Rad51-family members, promote chromosome stability and protect against DNA cross-links and other damages." Mol Cell. 1998 May;1(6):783-93.	
DL	C20	MAESHIMA K, et al., "RAD51 homologues in Xenopus laevis: two distinct genes are highly expressed in ovary and testis." Gene. 1995 Jul 28;160(2):195-200.	
DL	C21	MALDONADO E, et al., "A human RNA polymerase II complex associated with SRB and DNA-repair proteins." Nature. 1996 May 2;381(6577):86-9.	
DL	C22	MERCER WE. "Cell cycle regulation and the p53 tumor suppressor protein." Crit Rev Eukaryot Gene Expr. 1992;2(3):251-63.	
DL	C23	MIETZ JA, et al., "The transcriptional transactivation function of wild-type p53 is inhibited by SV40 large T-antigen and by HPV-16 E6 oncoprotein." EMBO J. 1992 Dec;11(13):5013-20.	
DL	C24	MORITA T, et al., "A mouse homolog of the Escherichia coli recA and Saccharomyces cerevisiae RAD51 genes." Proc Natl Acad Sci U S A. 1993 Jul 15;90(14):6577-80.	
DL	C25	OHNISHI T, et al., "In vitro and in vivo potentiation of radiosensitivity of malignant gliomas by antisense inhibition of the RAD51 gene." Biochem Biophys Res Commun. 1998 Apr 17;245(2):319-24.	

Examiner Signature	<i>David Lambertson</i>	Date Considered	6/24/03
--------------------	-------------------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English Language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. 1102895_1.DOC



Substitute for form 1449A/PTO
(Modified)

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

3

of

3

Complete if Known

Application Number	09/771,355
Filing Date	January 26, 2001
First Named Inventor	ZARLING, David A.
Group Art Unit	1636
Examiner Name	LAMBERTSON, David A.
Attorney Docket Number	A-68872-1/RFT/SPL (467135-98)

RECEIVED
FEB 28 2003
TECH CENTER 1600/2900

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
DL	C26	PITTMAN DL, et al., "Identification, characterization, and genetic mapping of Rad51d, a new mouse and human RAD51/RecA-related gene. Genomics. 1998 Apr 1;49(1):103-11.	
DL	C27	PLUG AW, et al., "Presynaptic association of Rad51 protein with selected sites in meiotic chromatin." Proc Natl Acad Sci U S A. 1996 Jun 11;93(12):5920-4.	
DL	C28	RESNICK, M.A., "Investigating the Genetic Control of Biochemical Events in Meiotic Recombination," in Meiosis, P.B. Moens, Ed. (New York: Academic Press) pp.157-210 (1987)	
DL	C29	SCULLY R, et al., "Association of BRCA1 with Rad51 in mitotic and meiotic cells." Cell. 1997 Jan 24;88(2):265-75.	
DL	C30	SHARAN SK, et al., "Embryonic lethality and radiation hypersensitivity mediated by Rad51 in mice lacking Brca2." Nature. 1997 Apr 24;386(6627):804-10.	
DL	C31	SHAW P, et al., "Induction of apoptosis by wild-type p53 in a human colon tumor-derived cell line." Proc Natl Acad Sci U S A. 1992 May 15;89(10):4495-9.	
DL	C32	SHINOHARA A, et al., "Cloning of human, mouse and fission yeast recombination genes homologous to RAD51 and recA." Nat Genet. 1993 Jul;4(3):239-43.	
DL	C33	SMITH SA, et al., "Allele losses in the region 17q12-21 in familial breast and ovarian cancer involve the wild-type chromosome." Nat Genet. 1992 Oct;2(2):128-31.	
DL	C34	SONODA E, et al., "Rad51-deficient vertebrate cells accumulate chromosomal breaks prior to cell death." EMBO J. 1998 Jan 15;17(2):598-608.	
DL	C35	SPANDIDOS DA, and Anderson ML. "Oncogenes and onco-suppressor genes: their involvement in cancer." J Pathol. 1989 Jan;157(1):1-10.	
DL	C36	STURZBECHER HW, et al., "p53 is linked directly to homologous recombination processes via RAD51/RecA protein interaction." EMBO J. 1996 Apr 15;15(8):1992-2002.	
DL	C37	TAKAHASHI T, et al., "Wild-type but not mutant p53 suppresses the growth of human lung cancer cells bearing multiple genetic lesions." Cancer Res. 1992 Apr 15;52(8):2340-3.	
DL	C38	TRAVALI S, et al., "Oncogenes in growth and development." FASEB J. 1990 Nov;4(14):3209-14.	
DL	C39	TSUZUKI T, et al., "Targeted disruption of the Rad51 gene leads to lethality in embryonic mice." Proc Natl Acad Sci U S A. 1996 Jun 25;93(13):6236-40.	
DL	C40	WEINBERG RA. "Tumor suppressor genes." Science. 1991 Nov 22;254(5035):1138-46.	
DL	C41	WILCOCK D, and LANE DP. "Localization of p53, retinoblastoma and host replication proteins at sites of viral replication in herpes-infected cells." Nature. 1991 Jan 31;349(6308):429-31.	
DL	C42	WOOSTER R, et al., "Localization of a breast cancer susceptibility gene, BRCA2, to chromosome 13q12-13." Science. 1994 Sep 30;265(5181):2088-90.	
DL	C43	YONISH-ROUACH E, et al., "Wild-type p53 induces apoptosis of myeloid leukaemic cells that is inhibited by interleukin-6." Nature. 1991 Jul 25;352(6333):345-7.	

Examiner Signature	David Lambertson	Date Considered	6/24/03
--------------------	------------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English Language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. 1102895_1.DOC